

REMARKS/ARGUMENTS

Claims 35-37, 45 and 48-54 remain in this application.

Concerning the rejection of claims 35-37, 45 and 48-54 under 35 U.S.C. 103(a)

The Examiner has cited US Patent No. 5,324,750 (Lincoln) against the above claims, saying that the reference makes obvious the subject matter of these claims when combined with the teachings of US Patent No. 6,017,458 (Ng) and either Armstrong (Anal. Chem. (1990), 62, pages 1610-1615) or Hargitai (Journal of Chromatography, 628 (1993), pages 11-22). Reconsideration of this rejection is requested.

Reconsideration of the Examiner's rejection of the claims is respectfully requested, on the basis that the Examiner has failed to establish a prima facie case of obviousness. Specifically, the Examiner has failed to establish that there is a reasonable expectation of success in the combination of Lincoln and Ng, and that there was motivation to combine these references.

Reasonable Expectation of Success

In the Lincoln reference, the attachment of a linker group involves a direct S_N2 reaction of a nucleophilic amine moiety on an electrophilic carbon located on a cyclodextrin moiety which bears a leaving group.

However, in the Ng reference a urea linker between the inert support and cyclodextrin derivatives (CD) is produced via a Staudinger type reaction where an azido (-N₃) group is crucial to the formation of a urea moiety on the CD, and not through the displacement of a leaving group. As the chemistry involved in the preparation of the compounds taught by the Lincoln and Ng references is completely different, it is incorrect to infer that linker-related teachings found in the Ng reference would reasonably be expected to succeed when applied to the teachings of the Lincoln reference.

Motivation to combine

The Examiner has also failed to establish a prima facie case of obviousness, as the statement provided by the Examiner to support the motivation to combine the Lincoln and Ng references is in error.

In his rejection, the Examiner gives the following motivation to combine elements of the Ng reference with the Lincoln reference:

"It would have been obvious to form a silane derivative for binding in Lincoln (U.S. Patent No. 5,324,750) because Ng (U.S. Patent No. 6,017,458) (column 2, lines 10-19; column 2, line 60-column 3, line 6; and column 3, lines 41-51) discloses forming a silane derivative results in a product that is universally applicable to HPLC, LC, TLC, and CLE and permits immobilization on a support material surface."

From a review of the passages of text referred to by the Examiner in his rejection, however, it is clear that the Examiner's motivation to combine references is unsupported. In Ng column 2, lines 10-19 it is stated that:

"One objective of this invention is the obtainment of novel and improved CSP materials comprising a support and completely regiodefined derivatised cyclodextrin chemically bonded via single or double urethane linkage(s), universally applicable in HPLC, LC, TLC and CCE. Application in counter-current chromatographic processes would thus afford a viable and efficient means into bulk/industrial scale enantioseparation, which would be of interest particularly to pharmaceutical firms involved in enantioseparation of racemic chiral drugs."

While the two other passages referred to by the Examiner describe possible process steps used to prepare a CSP material (column 2, line 60-column 3, line 6; and column 3, lines 41-51), no combination of these passages would lead a person skilled in the art to believe that "forming a silane derivative results in a product that is universally applicable to HPLC, LC, TLC, and CLE and permits immobilization on a support material surface", as proposed by the Examiner. From the first cited passage of the Ng reference, it is clear that it is the improved CSP materials comprising a support and completely regiodefined derivatised cyclodextrin chemically bonded via single or double urethane linkage(s) that are universally applicable in HPLC, LC, TLC and CCE. There are no teachings in the cited passages that support the assertion that forming a silane derivative would result in the stated advantage.

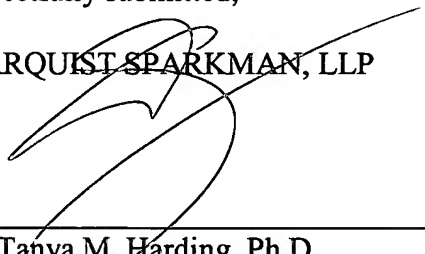
As the Examiner's supporting statement for the motivation to combine the Ng and Lincoln references is clearly in error, and since there is no reasonable expectation of success in the combination of these references because of their disparate chemistry, Applicant submits that the Examiner has failed to establish a prima facie case of obviousness, and respectfully requests that the rejection be withdrawn.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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